Weekly Report By: Sen. Matt Bartle Week of 3-8 (573) 751-1464

I am consistently amazed by the incredible advances in modern science and medicine. Hardly a day goes by when there is not some news of a breakthrough by scientists or researchers announcing that a new treatment, drug or technology is being developed that will in some way make our lives longer, easier or more healthy. Yet in our zeal for these good things it is important to consider the moral implications of certain new technologies. Science truly holds great potential for good but it also carries with it the potential for misuse and for evil.

We now find ourselves on the threshold of a brave new world of advancements in medical science. These advances hold great promise for the health of the human species but without proper guidelines to honor life, these advances will come at the expense of the most vulnerable among us. At issue currently is the battle over cloning, of which there are two kinds. Few would disagree that we should ban reproductive cloning where a live human, the exact replica of another walking, talking, living human is created. This is the fearful realm of science fiction and few are eager to go there.

The issue is more difficult when we consider therapeutic cloning where human embryos are created for the sole purpose of harvesting their stem cells. Here the danger is more subtle and the arguments of its proponents more alluring. They offer the hope of healing and the cure of dreadful diseases, not to mention improvements in the quality and quantity of life for us all as the result of this research. In exchange, they ask only that we turn a blind eye to the reality of what must first occur before these cells can be used, the destruction of a human embryo.

The main argument being used to promote the use of therapeutic cloning is that this is not really a human being in the first place. After all, argue its proponents, these embryos only result from the union of a human female egg and a cell (maybe a skin cell), not a sperm as is done with the usual creation of an embryo. Unfortunately, this line of reasoning merely sidesteps the question of what sort of entity is actually created. Leaving aside the clever arguments and the confusing scientific jargon (the process is known as somatic cell nuclear transfer) we are left with some undeniable facts that must be considered.

First, the sheep named "Dolly" that was cloned a few years back was made from this same procedure. So if a walking, eating, wool-bearing sheep resulted from this process, it is logical that a walking, talking human could as well. In fact, even its proponents don't deny this could be the result, stating only that the science is not yet far enough developed (but as the announcement that this procedure led to the cloning of a human embryo last month in South Korea shows, the technology is perhaps closer than we thought).

Secondly, what is this "thing" that is being created and does it resemble the human embryo from which each one of us grew? The answer is clear. If you were to set a cloned embryo and an embryo created by the union of sperm and egg side by side, they are indistinguishable. Furthermore, although no male sperm is used to create this embryo, it is still the union of male and female genetic material since the cell implanted in the egg (skin cell or some other cell) already contains 23 male chromosomes. When the cloning process is complete, the resulting embryo has the normal set of 46 chromosomes, just like the average man, woman or child conceived through normal means.

I have listened to the arguments by those who support cloning in Missouri. I have heard them tout the great benefits to society that will result from their research but I cannot get past the inescapable fact that therapeutic cloning destroys a human embryo and for that reason I cannot support it. I am pleased to see that this position is also shared by the President of the United States and a majority of the U.S. House of Representatives.

I have filed legislation that would ban cloning in Missouri and while this bill would foreclose research that destroys human embryos, it is important to point out that there are other methods of advancing the science of stem cell research that is not morally objectionable. Stem cells are also found in adults and in the placenta and blood from the cord of newborn infants and I wholeheartedly support the very promising research being done on stem cells from these sources.

This new century holds great promise as science and medicine increasingly push the boundaries of human knowledge. However, none of us want to live in a world where advances in technology are not tempered by ethics and morality. Such unbridled experimentation will only lead to increasingly subtle and yet horrific attacks on the most vulnerable among us.

If you have comments or questions about this week's column or any other matter involving state government, please do not hesitate to contact me. You can reach my office by e-mail at matt_bartle@senate.state.mo.us. Also, you can read any of the bills I file on my website at:

http://www.senate.state.mo.us/04info/members/mem08.htm). Thank you again for making it possible for me to serve in the Missouri Senate.